

Factors Associated With Renal Recovery Among Patients Hospitalized Due To AKI



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Introduction And Objectives

Acute Kidney Injury (AKI) is associated with poor short- and long-term outcomes. There is scarce data about factors associated with renal recovery after AKI. The objective of present study was to determine the frequency and factors linked to renal recovery among patients hospitalized with AKI in nephrology department.

Methods

Study type: retrospective cohort study on AKI recovery in patients treated in nephrology department within 1 year.

AKI definition: defined and staged according to KDIGO using change in serum creatinine.

Renal recovery: a decrease of serum creatinine $\geq 20\%$ of admission value and independence of any form of renal replacement therapy.

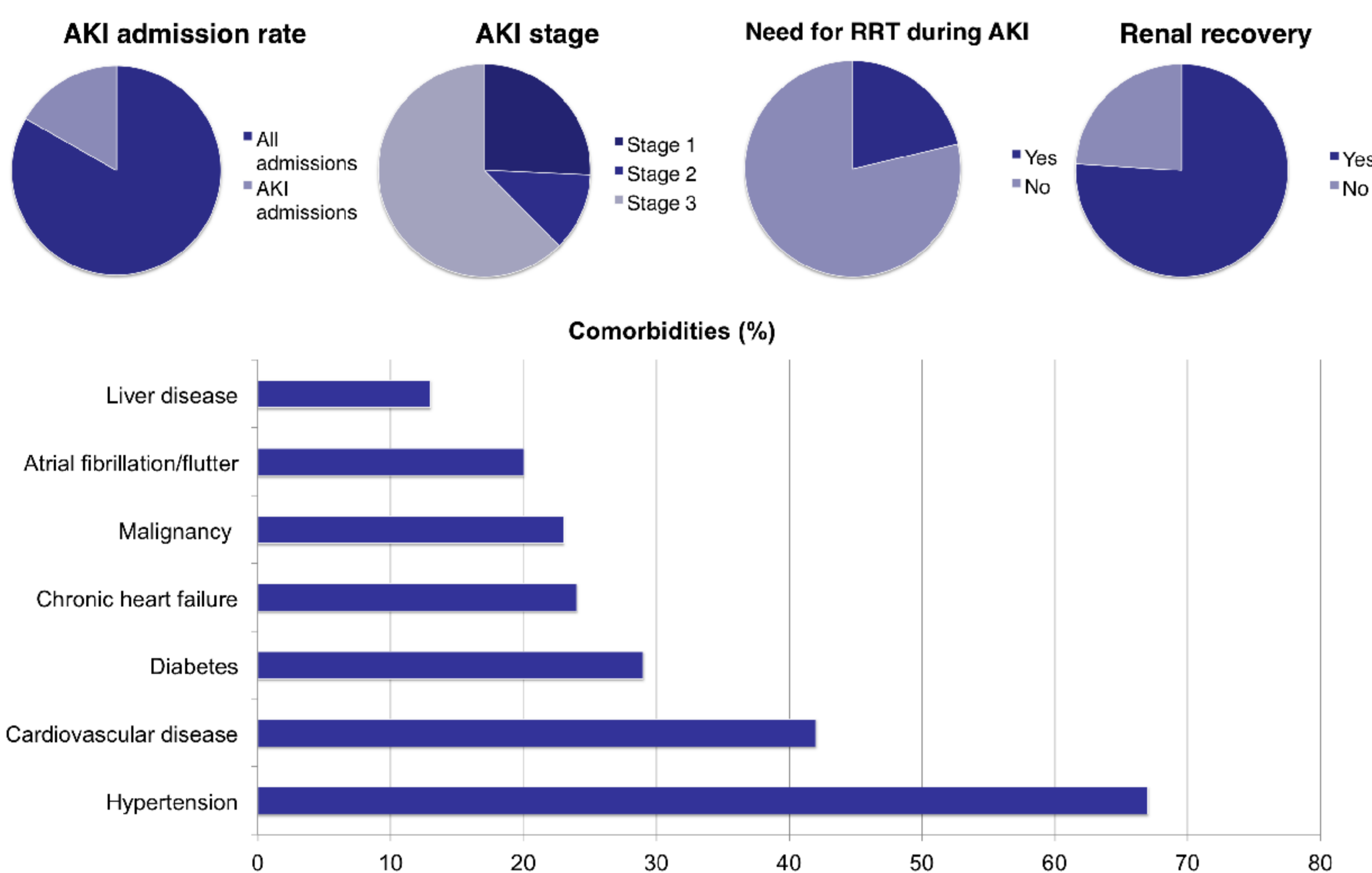
Comorbidities: identified basing on patients' medical records.

Statistics: logistic regression was used to determine factors associated with AKI recovery in univariate and multivariate analysis.

Results

Studied population's characteristic

Value	Value
Age (range)	67 (19-98)
Sex (F/M)	116/137
Length of hospital stay (days)	12 (0-55)
Mortality (%)	31 (12)



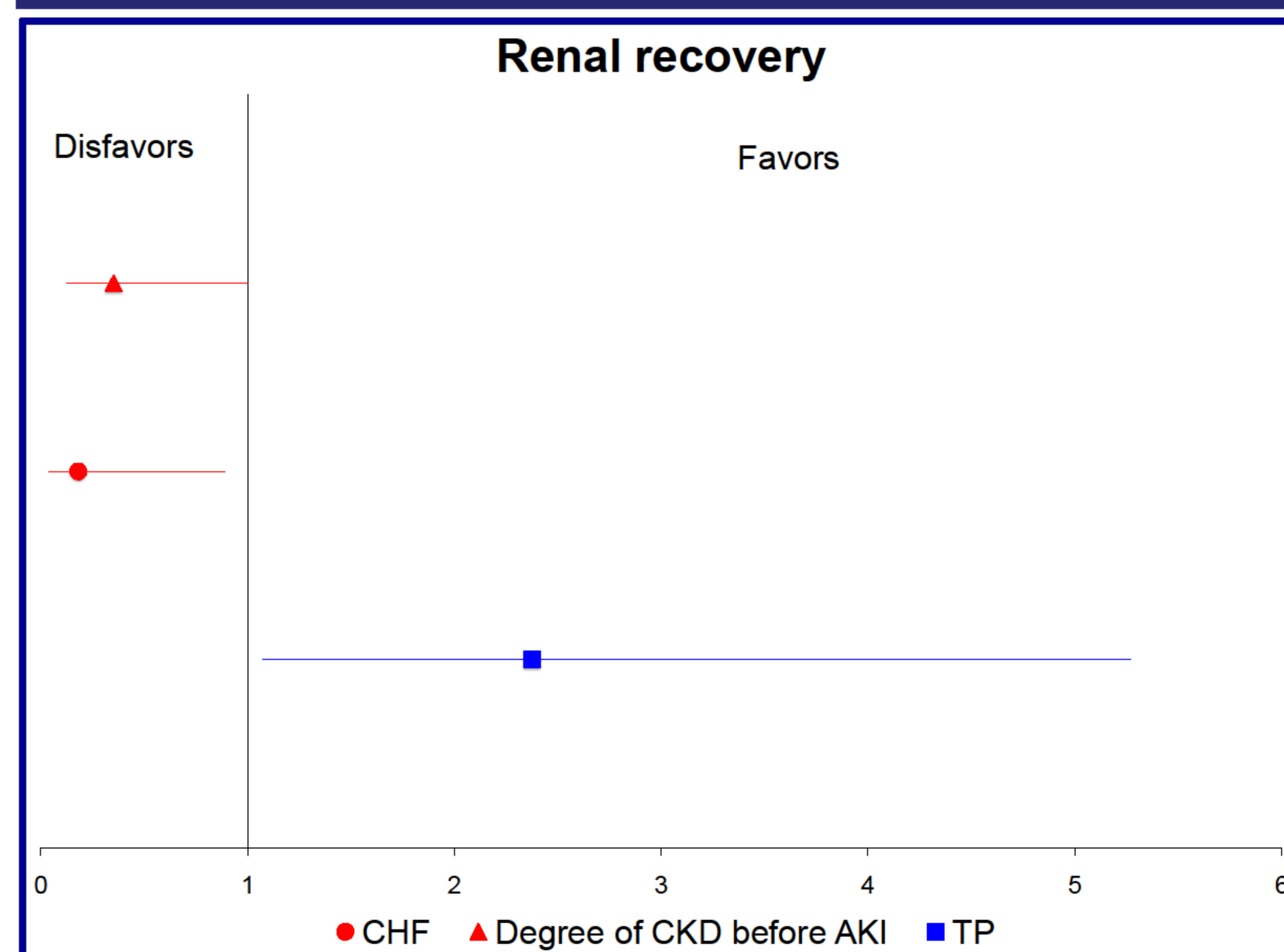
Laboratory values at admission

Parameter	Value (median (IQR))
Creatinine (mg/dl)	4.1 (2.6-6.4)
Urea (mg/dl)	152.2 (106.2-224.7)
pH	7.34 (7.26-7.39)
HCO ₃ (mmol/l)	19.1 (15.9-23.0)
CRP (mg/l)	38.9 (8.0-133.1)
WBC (10 ⁹ /l)	8.8 (6.7-12.9)
HGB (g/dl)	10.4 (9.2-12.3)
PLT (x10 ⁹ /l)	194 (137-278)
Potassium (mmol/l)	4.9 (4.3-5.7)
Sodium (mmol/l)	135 (131-139)
Calcium (mg/dl)	8.4 (8.0-9.2)
Phosphate (mg/dl)	4.9 (4.1-6.5)
Total protein (g/dl)	6.0 (5.5-6.6)

Univariate analysis

Variable	p
Degree of CKD before AKI onset	0.0004
AKI stage	0.0028
Chronic Hear Failure	0.0116
Hemoglobin concentration	0.0290
Total protein concentration (TP)	0.0290
Cardiovascular disease	0.0485
Atrial Fibrillation	0.0554
Serum calcium	0.0740

Multivariate analysis



Conclusions

Renal recovery occurred in 76% of patients admitted due to AKI. Concomitant chronic heart failure and advanced CKD decreased odds for renal recovery after AKI.

